Evolution of TAP

- potential errata == ??
- backwards compatible improvements == 1.1
- non-compatible changes $\neq = 2.0$

content from TAP Implementation Notes

https://volute.googlecode.com/svn/trunk/projects/dal/TAPNotes/TAPNotes-fmt.html

Proposed TAP Errata

- allowed names for UPLOAD tables
- multiple UPLOAD, especially in multiple jobmodifiying POSTs
- mapping VOTable to database column types
- tap_schema.columns.size: SIZE reserved
- clarification of VOTable use

VOSI-1.1

- make VOSI-tables more scalable
 - table list (in one schema?)
 - column metadata for one table
 - RESTful pattern of resources under /tables
- requires: additions to VOSI-tables xsd
- requires: define backwards compatible /tables
 - new standardID: ivo://ivoa.net/std/VOSI#tables-1.1
- GWS WG

- making required things optional: TAP_SCHEMA
- schema/table/column metadata available in 2 ways:
 - TAP_SCHEMA tables: arbitrary queries
 - VOSI-tables: read XML document
- possible erratum: do not support joins between TAP_SCHEMA and content tables
 - TAP_SCHEMA could be in a separate server or embedded DB – relieve some implementation pain

- making required things optional: TAP_SCHEMA
- implementation pain
 - services that aggregate others on-the-fly
 - private tables (access control)
 - NoSQL systems... are they feasible when ADQL is required?
 - allow custom name for TAP_SCHEMA... bootstrap?

- making required things optional: async
- recent developments focussed on individual capabilities
 - TAP-sync and TAP-async are different capabilities
 - each should have a standardID
 - both could be optional ...
 - impact on TAPRegExt?
 - schema has a fixed standardID (ivo://ivoa.net/std/TAP)
 - ivo://ivoa.net/std/TAP#sync-1.1ivo://ivoa.net/std/TAP#async-1.1

- /examples endpoint
 - give example queries that clients can extract from a human readable document
 - tell client which table(s) the example applies to
 - DALI-examples ++

- /plan endpoint
 - get query plan instead of results
 - text/plain output with no defined format (for humans)
 - plan after ADQL → SQL so could be confusing

TAP-2.0

- add table/column metadata to describe describe changes
 - modification timestamps
 - TimeToLive to convey volatility, when to refresh
 - change: VODataService xsd (VOSI-tables)
 - change: TAP_SCHEMA

Other issues?

Discuss!